

Replacement Instructions

hp StorageWorks SCSI I/O Module with Integrated EMU

These instructions apply to the MSA1000 product family. The part may also be used in other HP products. Please refer to documentation for your specific product for detailed replacement instructions.



If the product in which this part is being replaced is still under HP warranty, then the replacement part(s) referred to in these Replacement Instructions is provided under the terms and conditions of the Hewlett-Packard Company Limited Warranty for that product. A copy of this Limited Warranty may be viewed at:

<http://h18006.www1.hp.com/products/storageworks/warranty.html>

If this is a trade sale part (product out of warranty), then the replacement part(s) referred to in these Replacement Instructions is provided under HP's express limited warranty statement, which may be viewed at:

http://customerops.corp.hp.com/1sw/pdm_om/warranty_support/policies/2330100.doc

The replacement part takes on either the Limited Warranty Period of the part being replaced or a ninety-day period that begins upon installation of the replacement part, whichever is greater.

The information contained on these replacement instructions is subject to change without notice. The only warranty for this replacement product is as noted above. Nothing in these replacement instructions should be construed as constituting an additional warranty. The information provided in these replacement instructions is provided "AS IS" and HP is not liable for technical or editorial errors or omissions contained herein.

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SCSI I/O Module with Integrated EMU Indicators Replacement Instructions

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358189-001

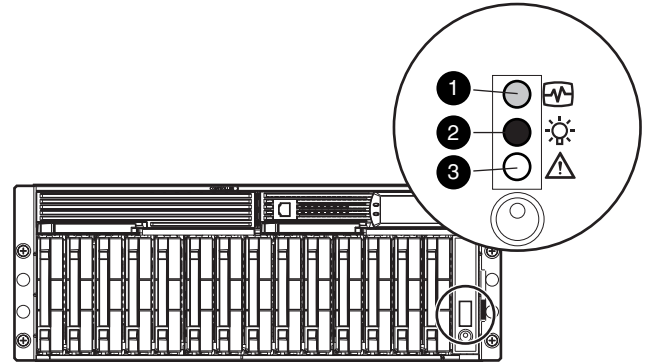
About this document

This document details the procedures for replacing a failed SCSI I/O Module with Integrated EMU Indicators in HP StorageWorks Modular Smart Array (MSA) storage systems.

Verifying component failure

Before replacing the module, use the following methods to verify the component failure.

- If the EMU indicator on the front panel ❶ is not blinking, it indicates a failure.
- If the fault indicator ❸ is amber, it indicates a fault.

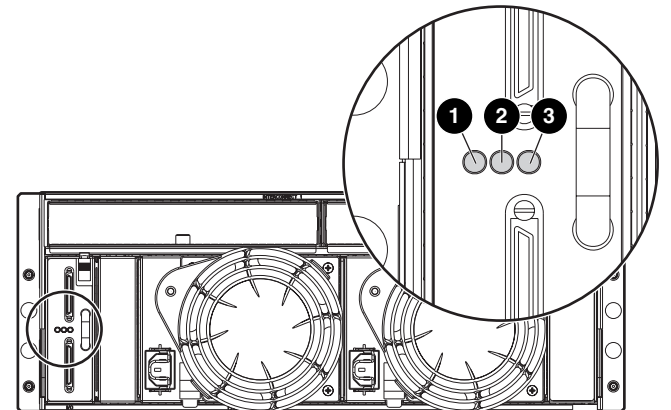


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Figure 1: Front panel LED indicators

- ❶ EMU Indicator
- ❷ Power indicator
- ❸ Fault Indicator

- If the SCSI I/O Module power indicator ❶ is off it indicates a failure.



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Figure 2: SCSI I/O Module LED indicators

- ❶ Power indicator
- ❷ Port activity
- ❸ Port activity

- Check the controller LCD for one of the error messages listed in Table 1.

Table 1: LCD Error Messages

No.	Message
23	SCSI SUBSYSTEM HARDWARE FAILURE
311	EMU FLASH FAILED
412	STORAGE BOX #<n> EMU NOT RESPONDING

Before you begin

Read the following cautions and information before beginning removal and replacement procedures.



Caution: Be sure the replacement part is available before removing the failed component. Removing a component impacts cooling within the enclosure.



Caution: Parts can be damaged by electrostatic discharge. Use proper anti-static protection. Refer to the documentation that shipped with your system for additional information.



Caution: It is important to follow these instructions when replacing components in the MSA. If the procedure is done improperly, it is possible to lose data or damage equipment.

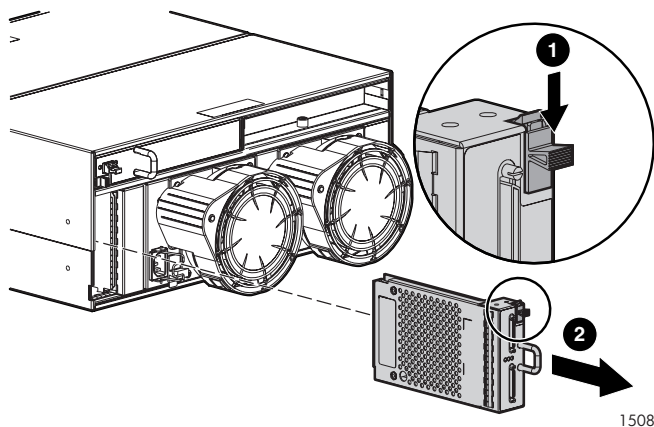
Step 1: Removing the module

Note: The SCSI I/O module with an integrated EMU is not hot-pluggable. Before replacing the module, all I/O from the servers must be stopped and any attached storage enclosures must be powered off.

1. Disconnect the SCSI cables from the module.

Note: Be sure to label the cables so that they can be reattached to the same connector on the replacement module. Failure to reattach the cables to the proper connector results in an error.

2. Press down the release latch ❶.
3. Slide the module ❷ straight out.



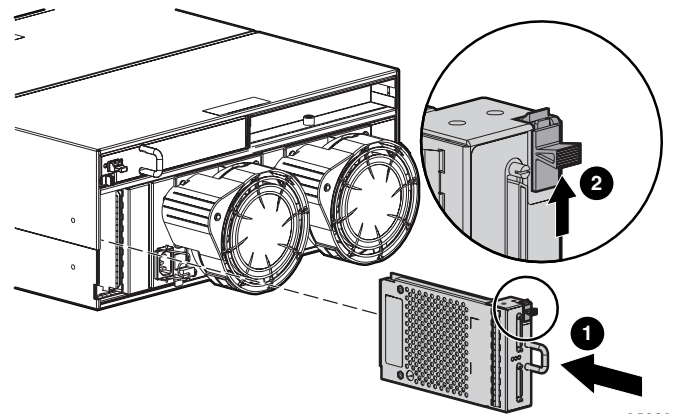
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Figure 3: Removing the module

Step 2: Installing the module

To install the new module:

1. Slide the module straight in and make sure it is fully seated ❶.
2. Secure the release latch ❷.



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Figure 4: Installing the module

3. Reconnect the SCSI cables into the same location noted in step 1 of "Removing the module."
4. Power on any attached storage enclosures and verify connectivity.

Installation is complete.

Verifying the replacement

After replacing the failed switch, be sure that:

- The EMU indicator on the front panel is blinking green.
- The fault indicator on the front panel is off. Unread error log messages may cause the LED to remain lit. Be sure all error messages that have been responded to are deleted. Messages can be deleted by simultaneously pressing the left and right navigation buttons on the controller.
- The SCSI I/O Module power indicator is on.
- No new error messages are displayed on the LCD.

Returning the failed component

Please follow the return instructions provided in the new component package.

Additional information

For additional information, refer to the MSA technical documents web site at <http://www.hp.com/go/msa1000>.